



Stress in NASA

Senior Management Council

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Stress & Depression in the Workplace

Stress

- Affects everyone at some point in their life.
- Negative impact depends on an individual's ability to cope and their perception.
- Excessive or uncontrolled stress can potentially lead to depression, but in itself is not a form of mental illness.

Depression

- Mental disorder characterized by alterations in thinking, mood, or behavior associated with distress and/or impaired functioning.
- Uncontrolled stress is a significant risk factor for depression



Potential Causes of Stress

- Downsizing
 - Reduced job security
 - Decreased morale
- Increased work load
 - Anger
 - Lack of civility and mutual respect



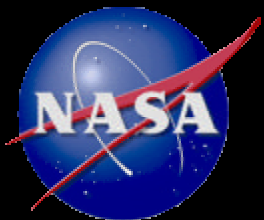
Potential Indicators of Stress

- Increasing EAP utilization rate despite decreasing workforce size
- EAP feedback of increasing hostility & work-related stress
- Increased unscheduled leave
- Increased overtime and comp time
- Increased forfeiture of credit hours and comp time

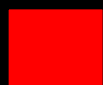
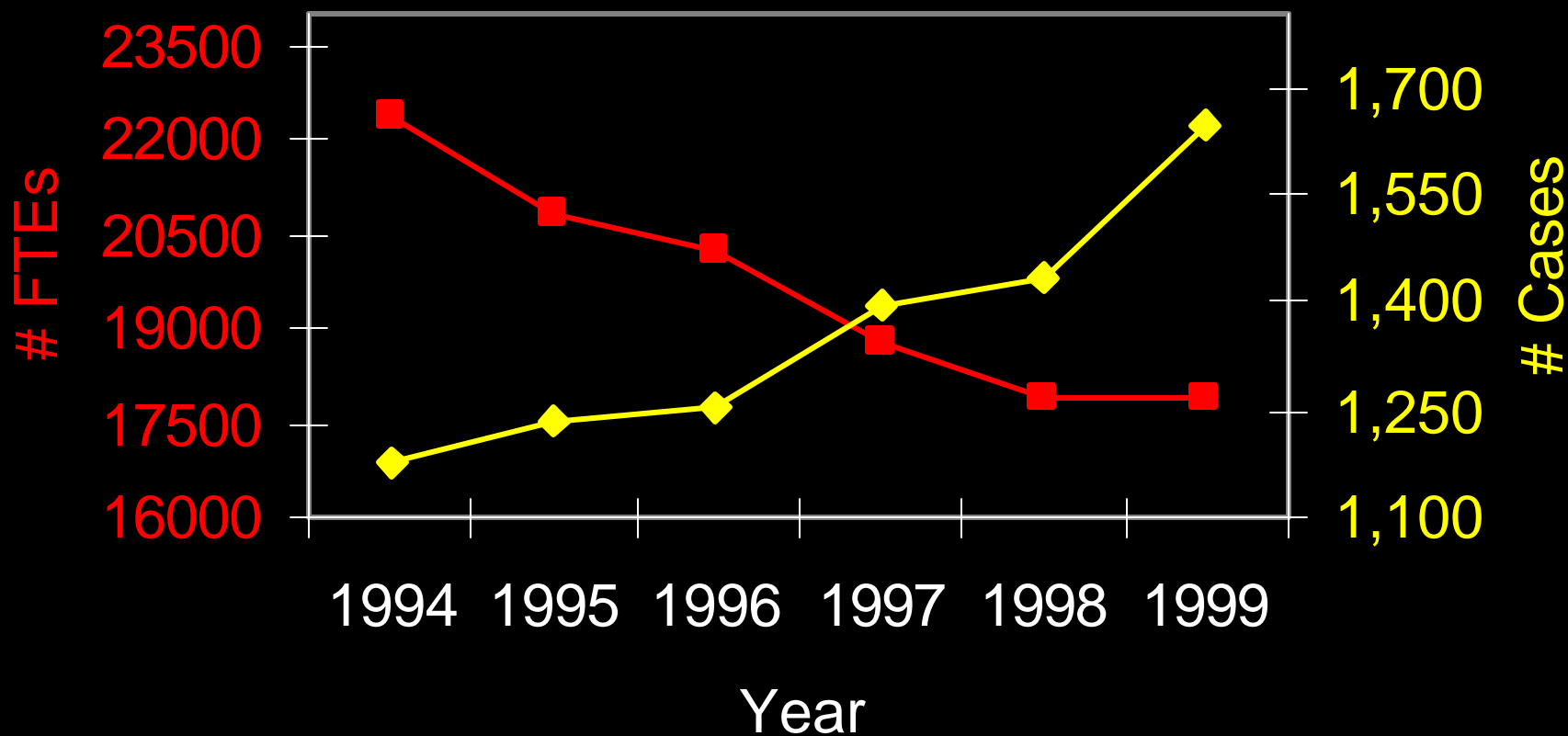


Stress in NASA: EAP

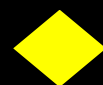
- EAP actual cases and utilization rates increased at @1% per annum from 1996 on; Federal utilization rates increased an average of .025% per annum
- 1995-1997 NASA EAP utilization rates rank among top five for all Federal agencies of similar FTE size
- FY 99 NASA EAP utilization rate is 9.2% compared to 5% Federal average



EAP Cases Agency-wide



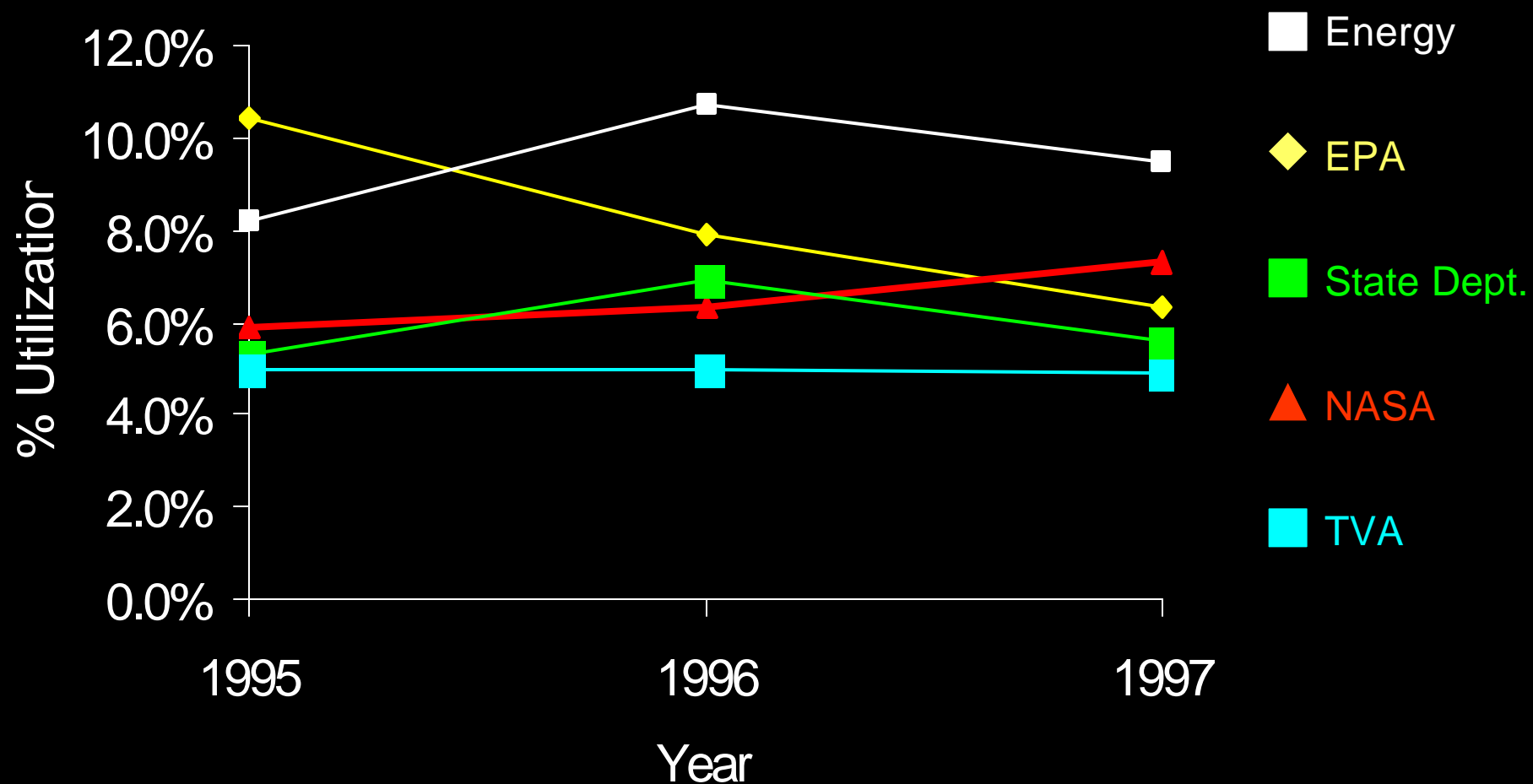
FTEs



EAP Cases



Comparison of EAP Utilization Rates



*Agencies with 17,000-24,000 FTEs



Difficulty in Interpreting EAP Data

- Utilization as a “positive”; a sign of confidence in a robust program
 - Supervisors encourage people to use EAP
 - NASA EAP utilization has been consistently more than 95% voluntary
- Utilization as a “negative”; basic premise that only employees with a problem/concern engage EAP

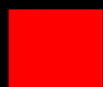
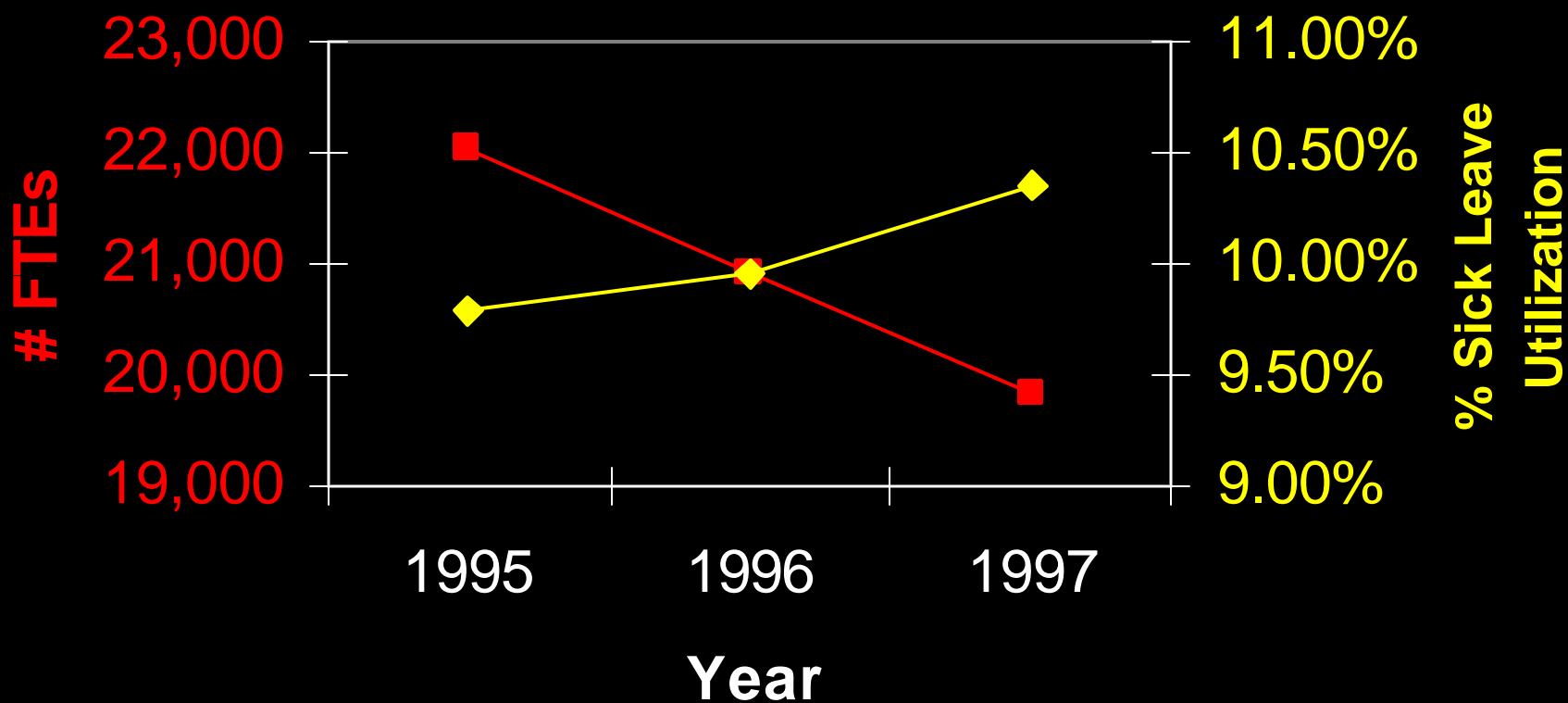


Stress in NASA: Unscheduled Leave Time

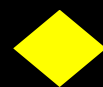
- 1995-1997, 3-year review of lost time data indicates that the Centers with the greatest percentage of downsizing have highest use of sick leave
 - User data confounded by many variables, e.g. type of retirement, lack of medical substantiation for short absences
 - Identifies need to review other data points (e.g. loss of Annual Leave or forfeited comp time)



% Sick Leave Utilization Agency-wide



FTEs



% Sick Leave Utilization

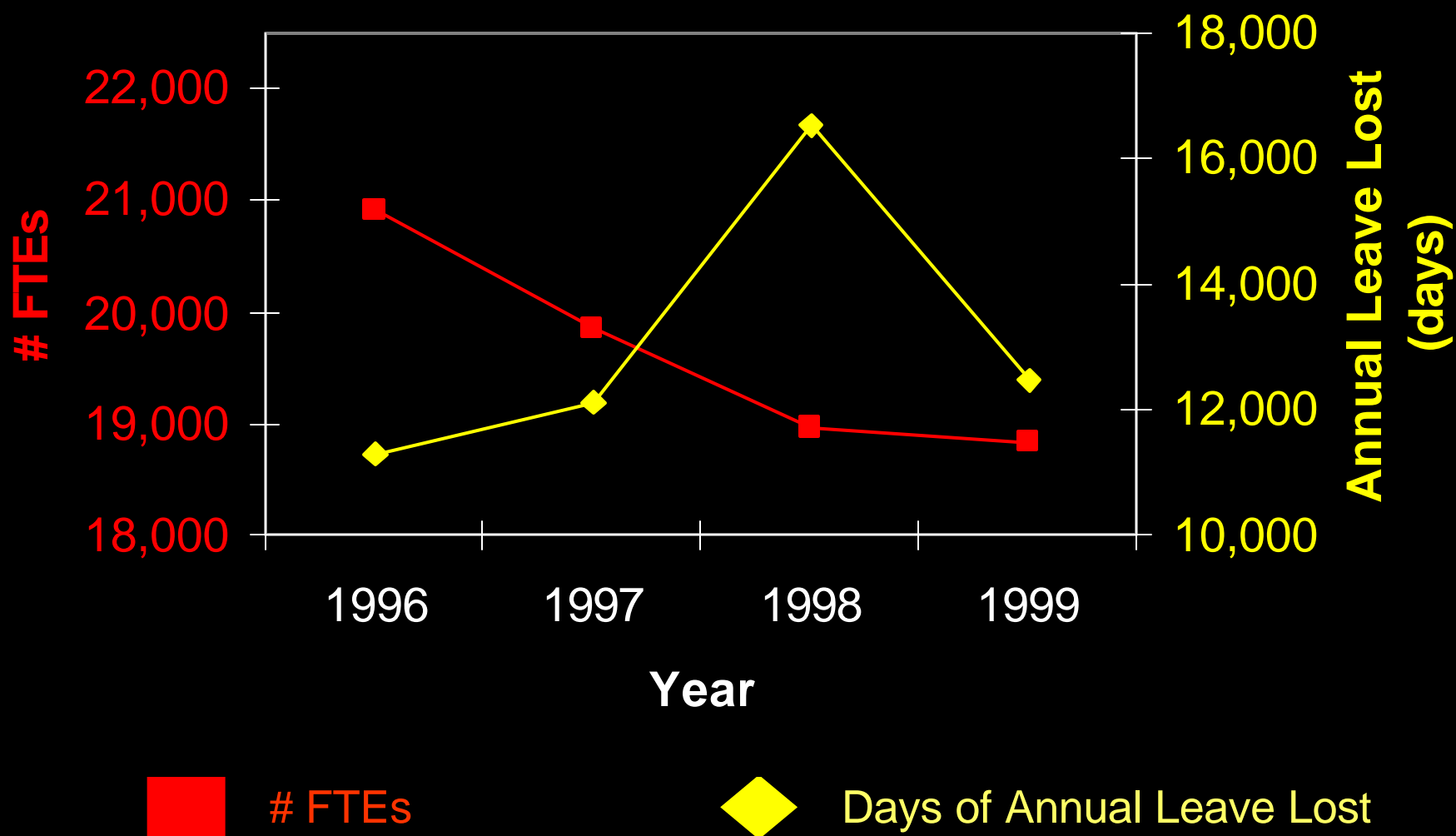


Stress in NASA: Annual Leave Lost

- From 1996-1999, annual leave lost Agencywide increased, with a peak in 1998



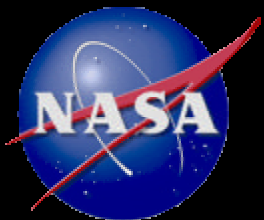
Annual Leave Lost Agency-wide



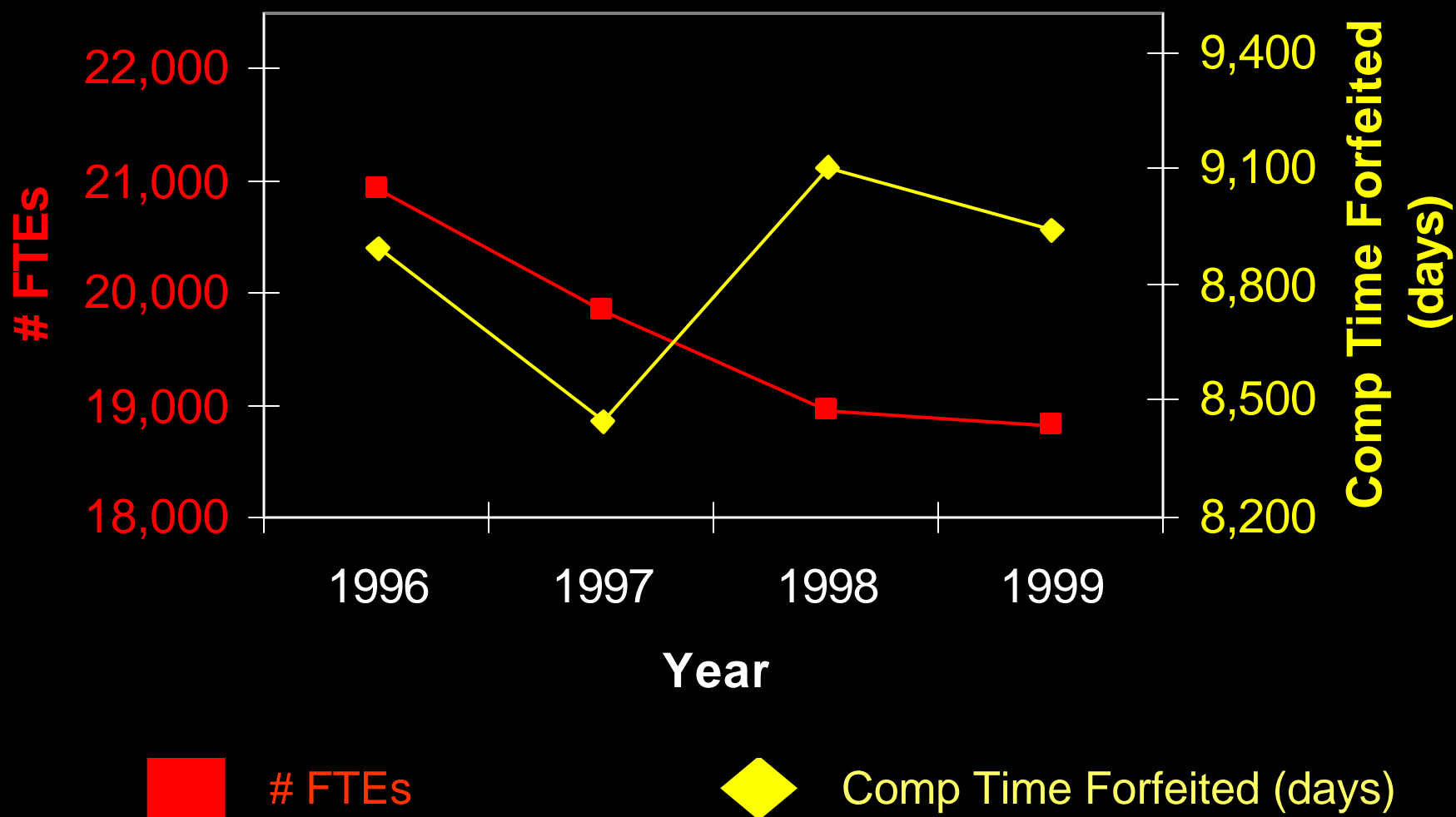


Stress in NASA: Comp Time Forfeiture

- Compensatory time earned increased and peaked in 1997, demonstrating no significant increase in 1998 or 1999
- Compensatory time forfeited peaked in 1998 and remained high in 1999

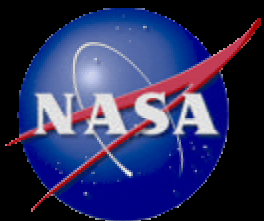


Comp Time Forfeited Agency-wide

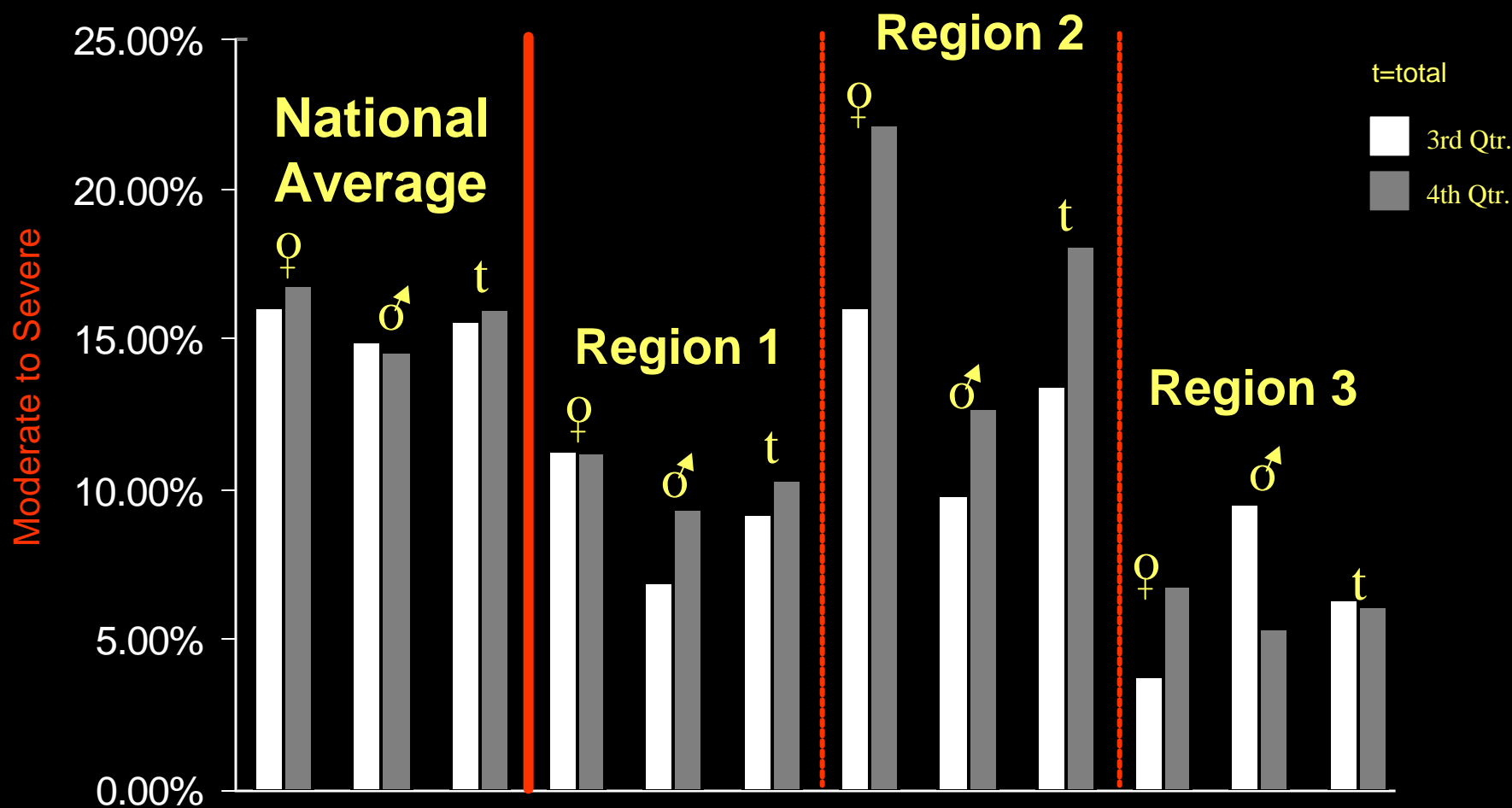




Stress in NASA: Phone Depression Survey



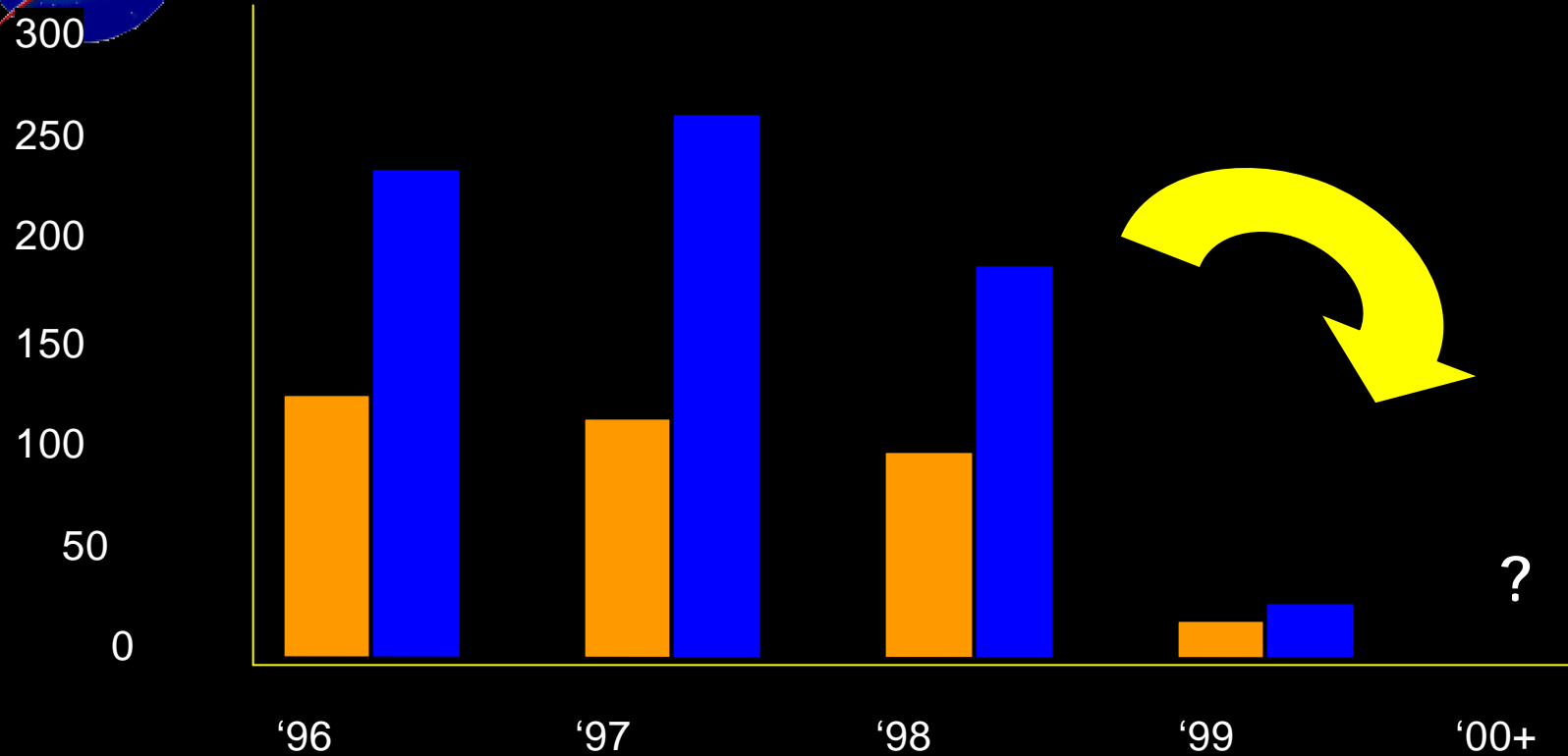
Telephone Survey Depression Indicators Agency-wide





NASA Occupational Health Injuries



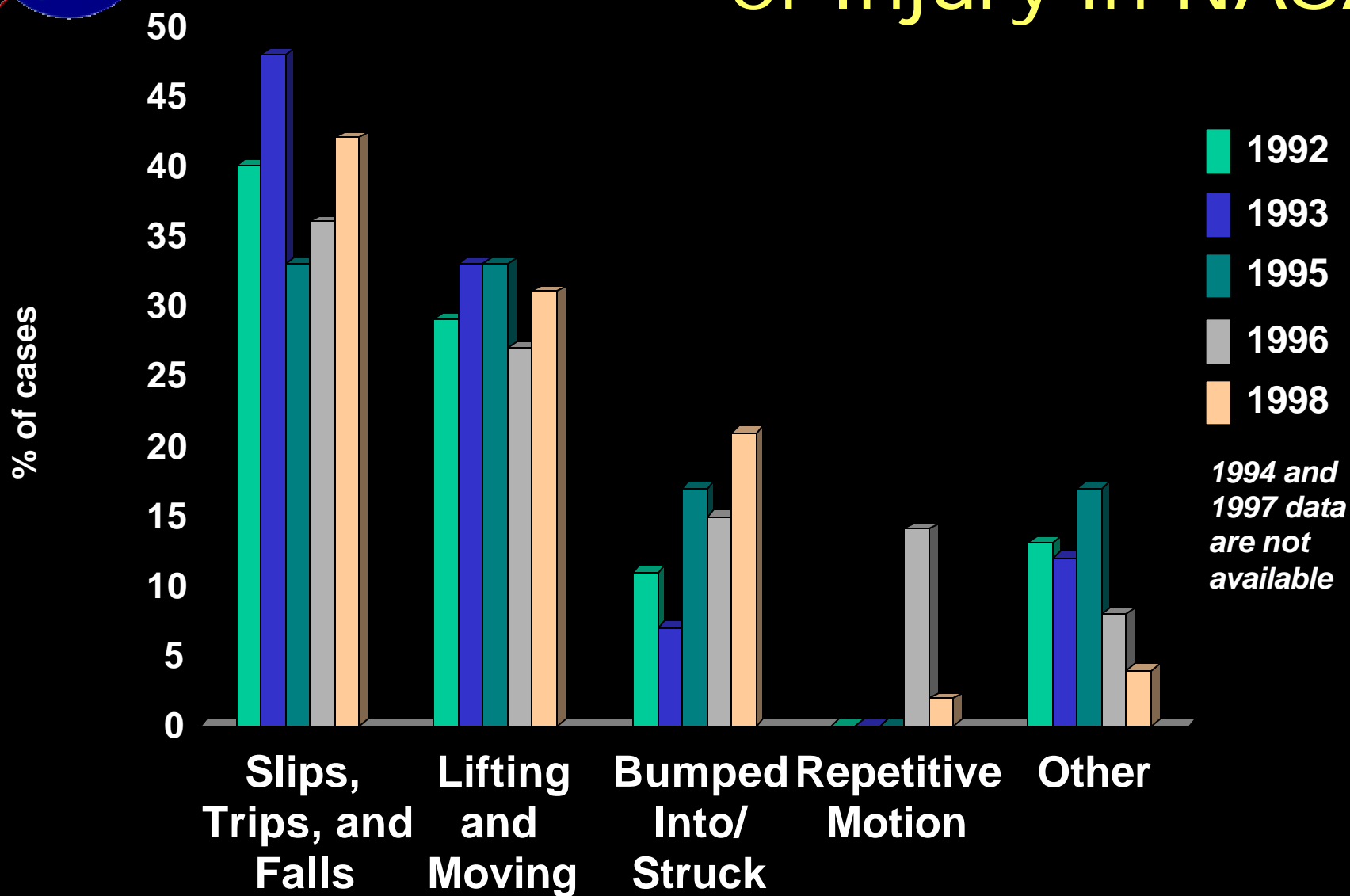
NASA Occupational Health Injuries



-  NASA lost time WC cases
-  NASA lost time and monetary cost WC cases



Leading Causes of Injury in NASA





OIC Stress Reduction Recommendations Tally

- Tabulation and summary of comments
- 161 recommendations total
- 141 with sufficient similarity and duplication to combine into 30 broader recommendations
- 20 unique stand-alone recommendations
- Presented summary to OHSEB



Top OIC Stress Reduction Recommendations

- Major Recommendations
- Re-evaluate staffing levels, hire key personnel ASAP (16)
- Facilitate participation in existing wellness programs (13)
- Improve 2-way communication, “listen to employees” (10)
- Reduce number of new initiatives (9)
- Compensate for frequent overtime with “time-off” (9)
- Eliminate work overload, balance workload (9)



OHSEB Stress Reduction Recommendations

- Consolidated all OIC recommendations
- OHSEB recommendations summarized OIC input into three major areas:
 - Reassess and confirm need for each new initiative, explore all options to realign workforce to meet workload demands, track payroll workload indicators
 - Continue to enhance EAP stress tracking, measurement, and amelioration efforts for supervisors & employees. Retain telephone depression screening capability as “safety net”
 - Establish anonymous, non-attributional complaint and improvement opportunity reporting system for workplace stress similar to NSRS



NASA Occupational Health Amelioration Efforts

- Consulting and technical support
- 24 Hour EAP consulting hot line
- Training assistance
- EAP critical incident debrief teams
- Proposed Agency-wide random survey of NASA workforce stress
- National Depression Screening Project



Workload Amelioration Efforts

- In addition to the FTE relief already granted to Centers having the most immediate needs, NASA plans to use existing hiring authority to supplement the workforce with temporary highly skilled individuals by a variety of means including:
 - IPAs,
 - Temporary positions
 - Part-time positions



OPM Recommendations for Federal EAPs

- Total management support
- Comprehensive training strategy that includes required training for management
- Utilize advance technologies to create awareness
- Increase EAP feedback mechanisms and communicate feedback results
- Conduct regular evaluations of EAP effectiveness
- Establish a board responsible for oversight of agency activities, operations, unions, and other stakeholders for guiding EAP policy



Summary

- Excessive stress as been shown to damage health and impair performance
- Excess stress may adversely impact health safety, performance, and productivity and is a risk factor for depression, a common form of mental illness
- Behavioral interventions and changes in root cause reduces the psychosocial risk factors and lowered productivity associated with excess stress

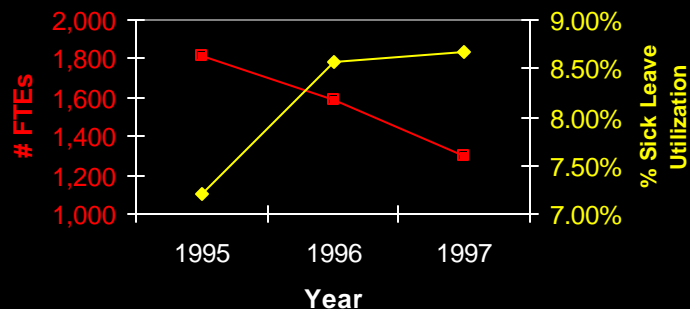


Back-up

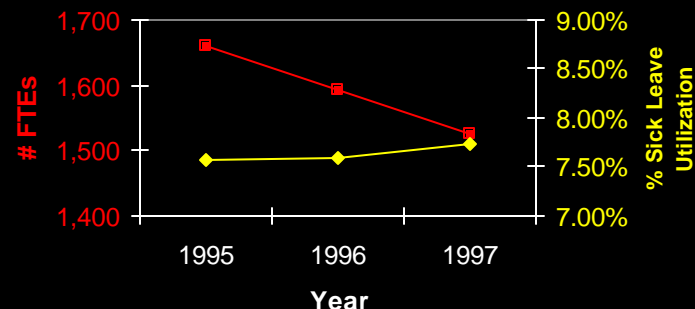


% Sick Leave Utilization (By Center)

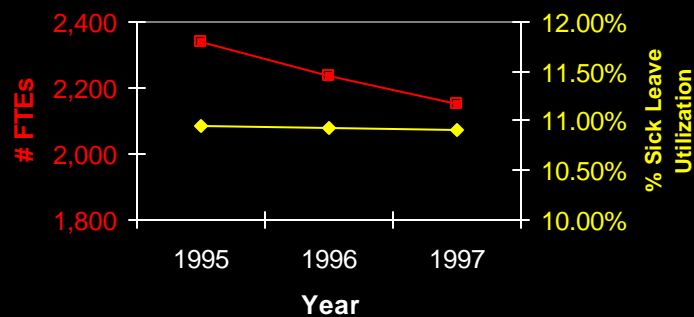
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ARC

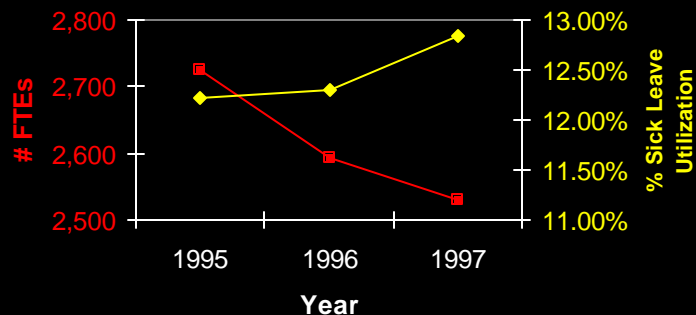


Glenn

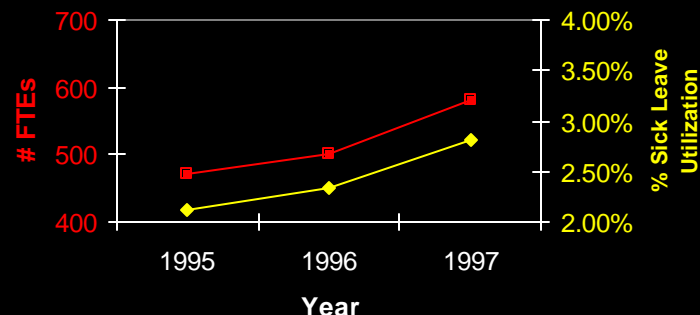


■ FTEs
◆ % Utilization (days)

Langley



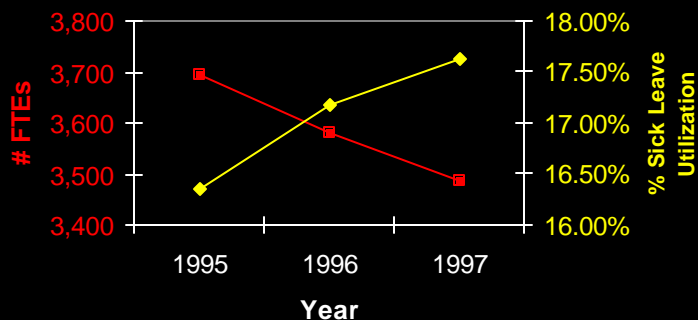
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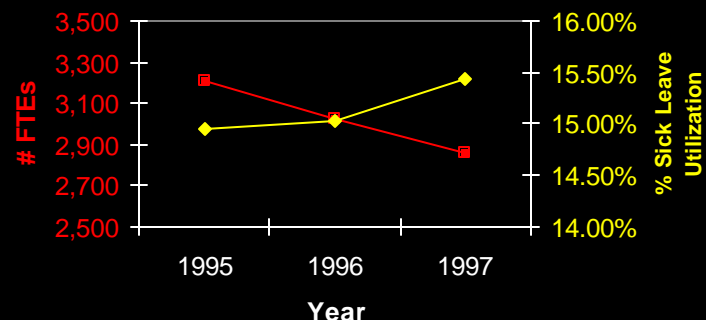


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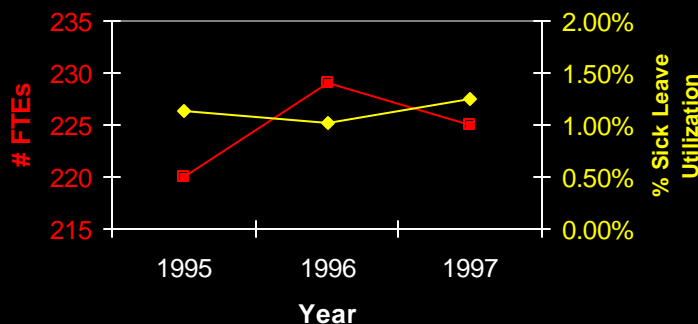
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MSFC

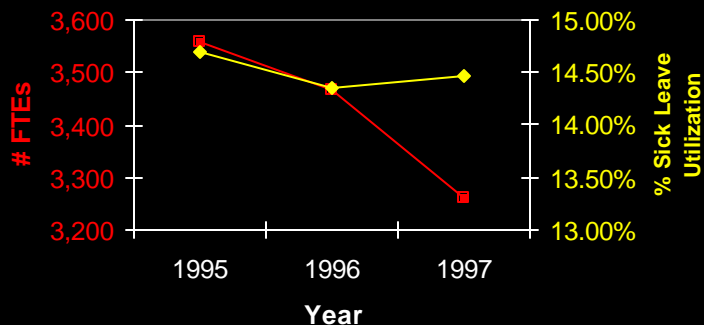


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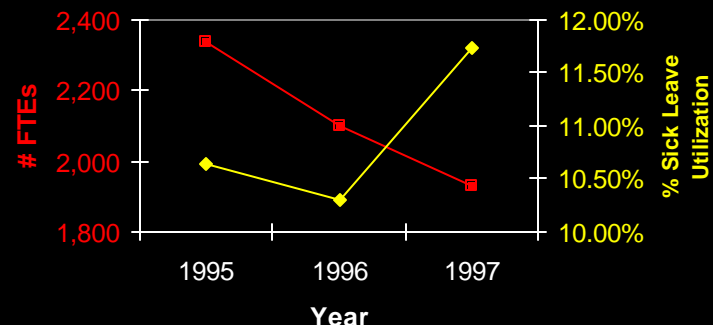


■ FTEs
◆ % Utilization (days)

JSC

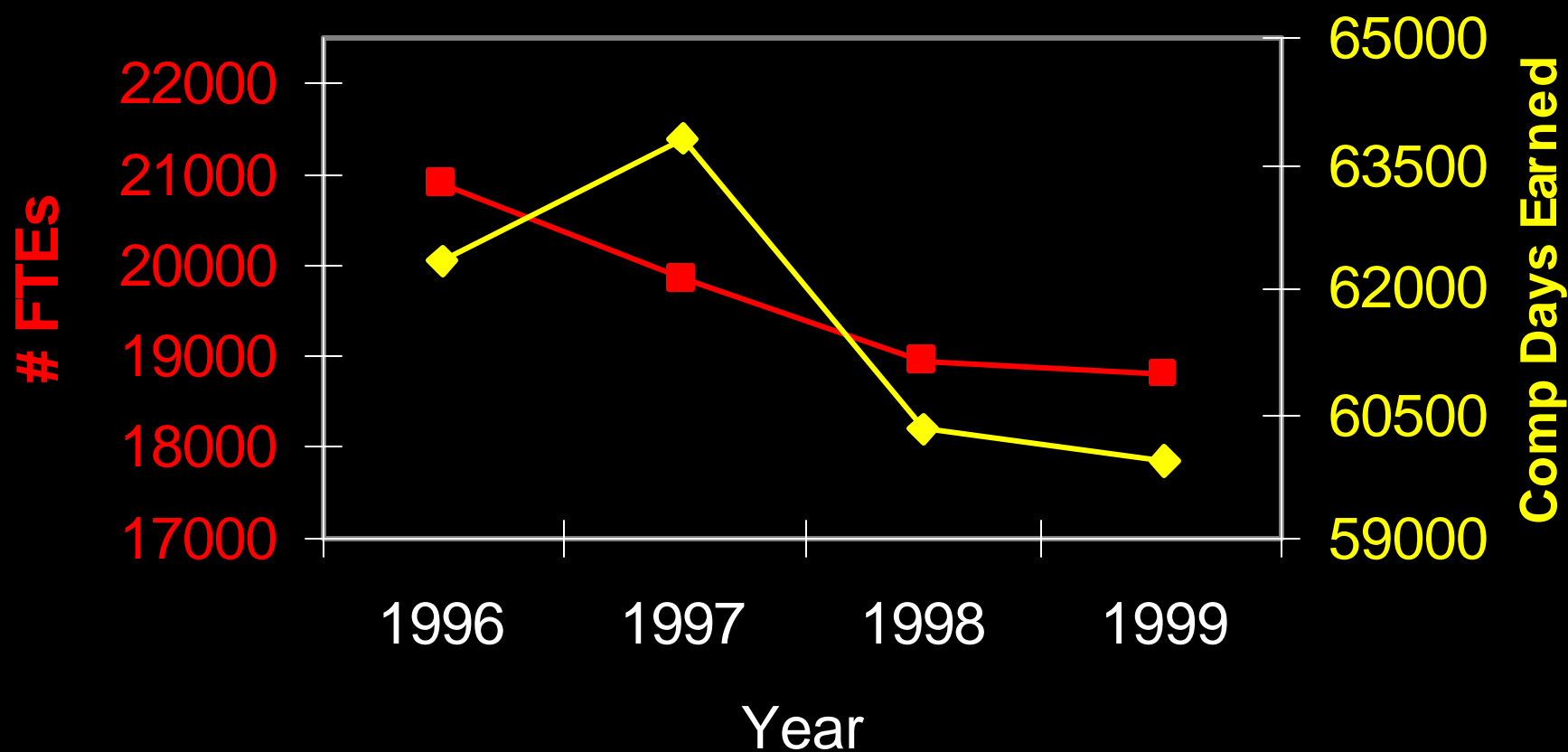


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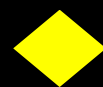




Comp Time Earned Agency-wide



FTEs

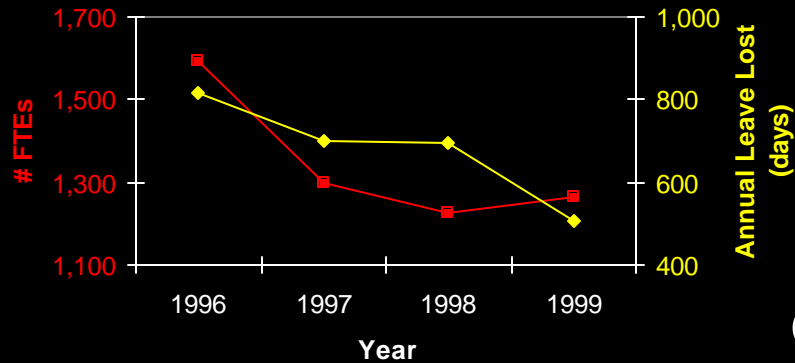


Comp Time Earned (days)

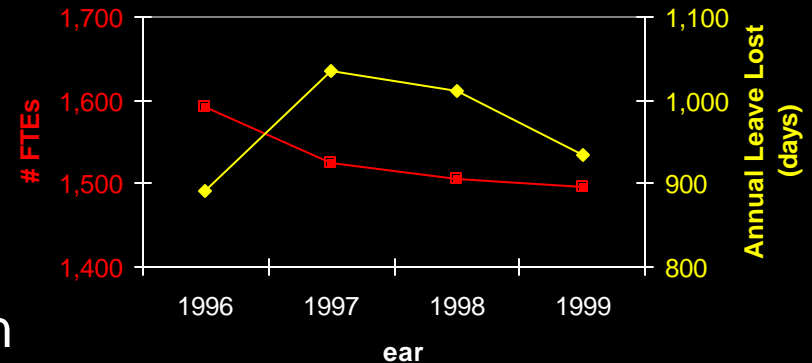


Annual Leave Lost (By Center)

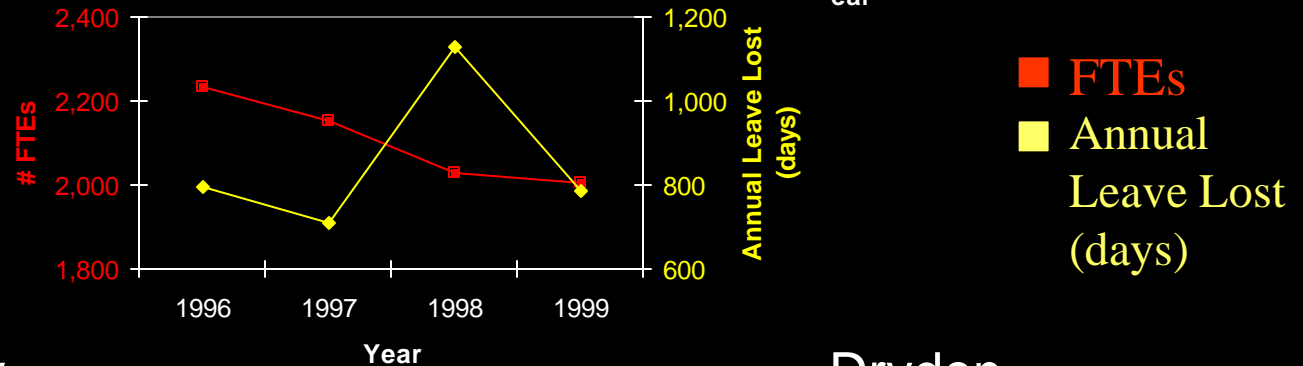
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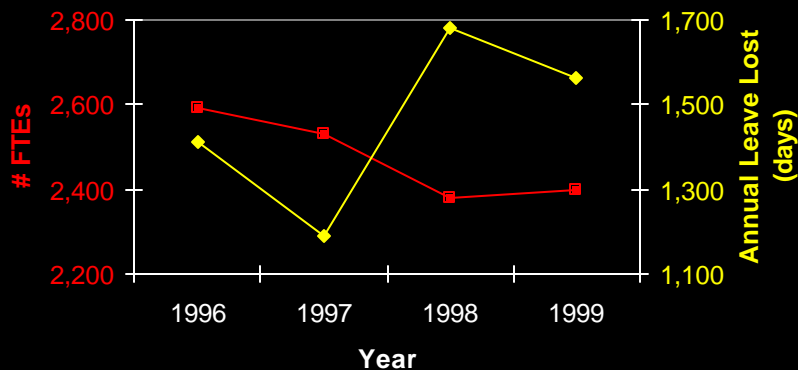
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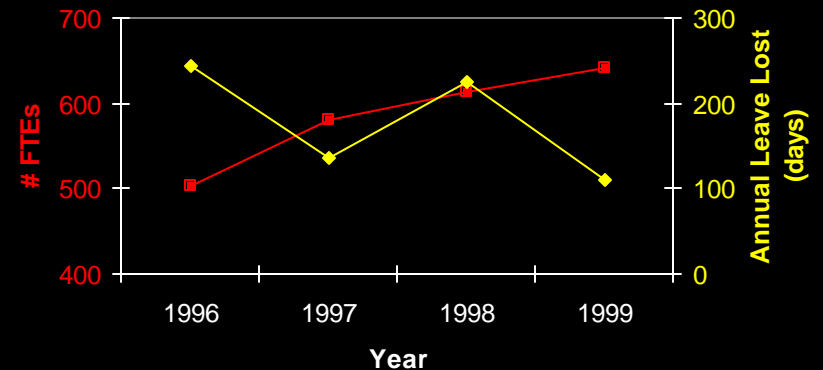
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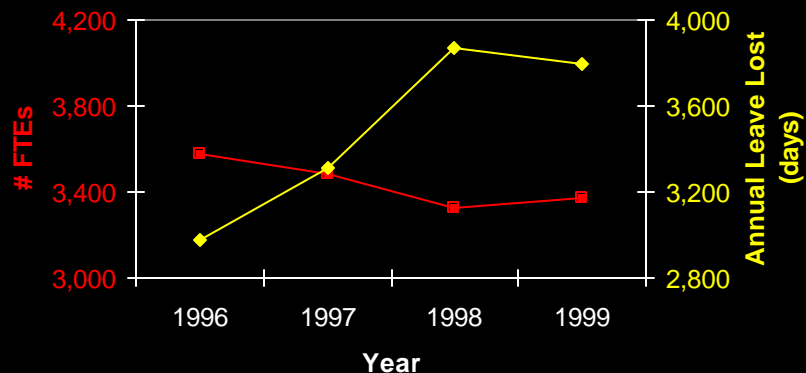
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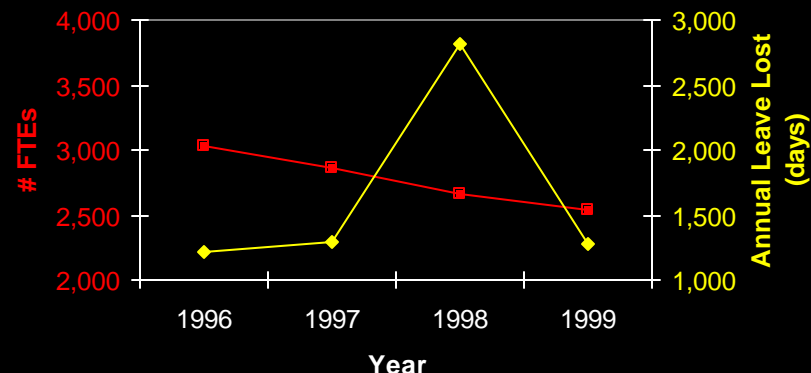


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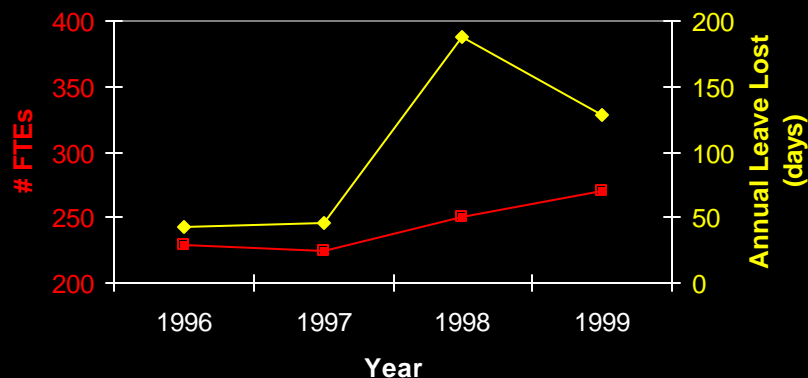
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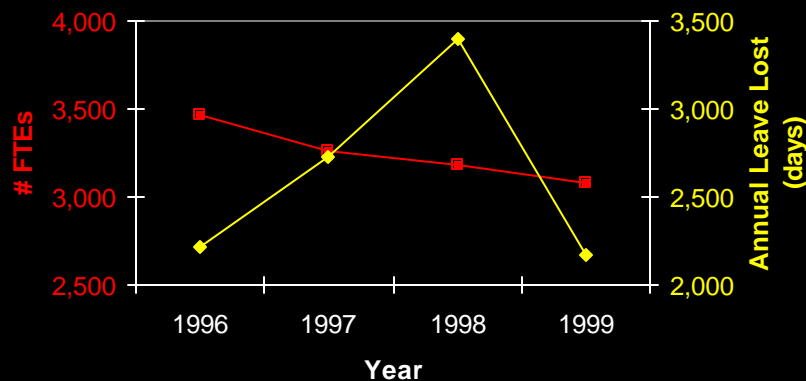


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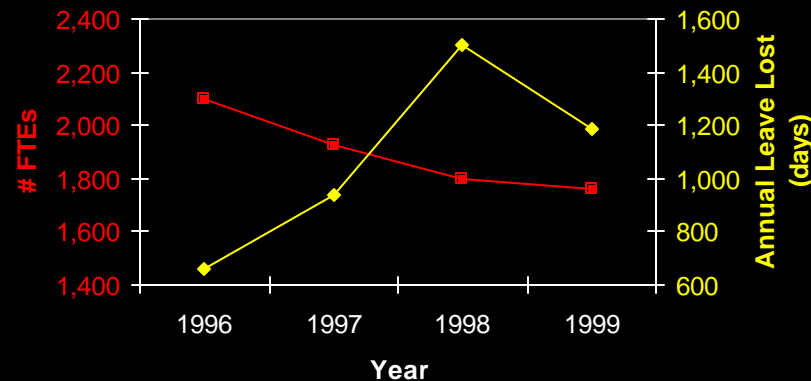


■ FTEs
■ Annual Leave Lost (days)

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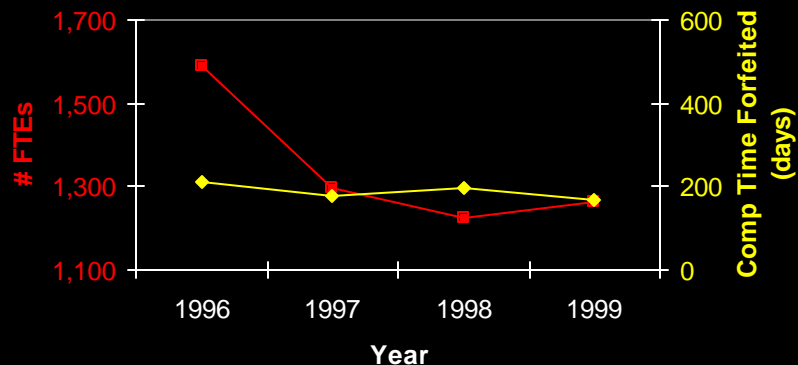
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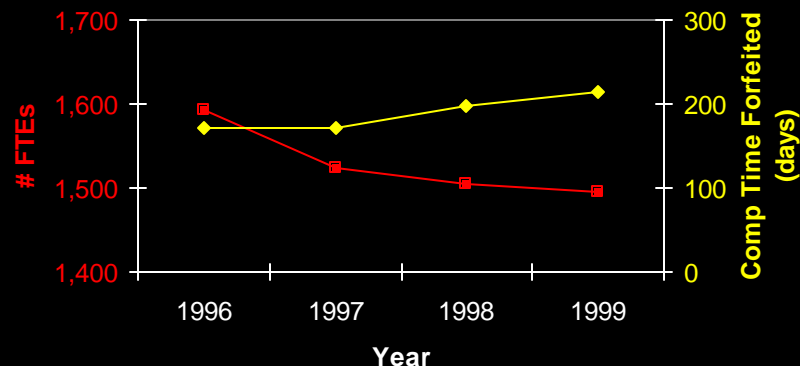


Comp Time Forfeited (By Center)

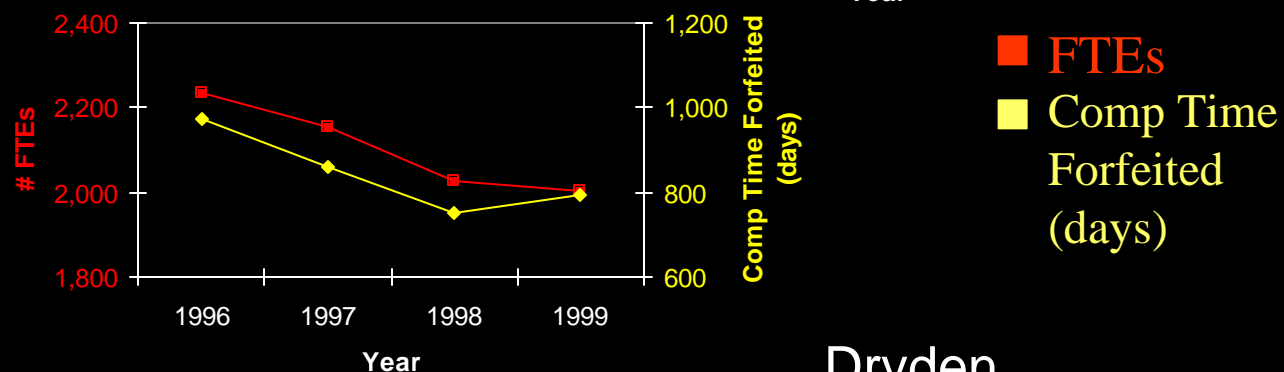
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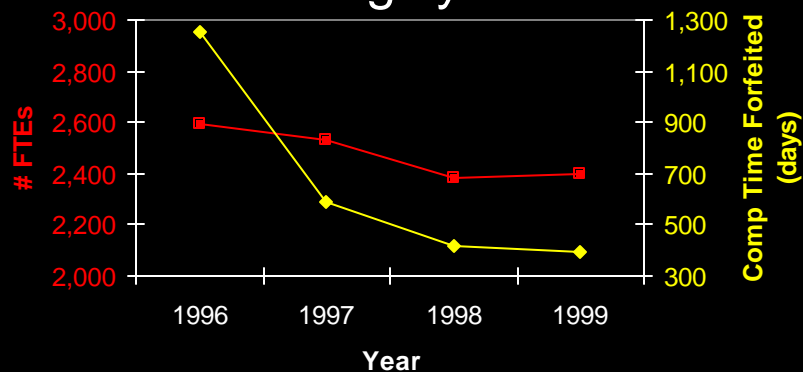
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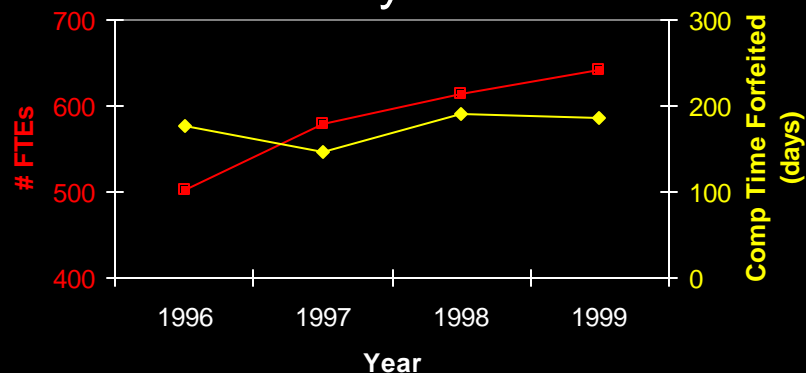
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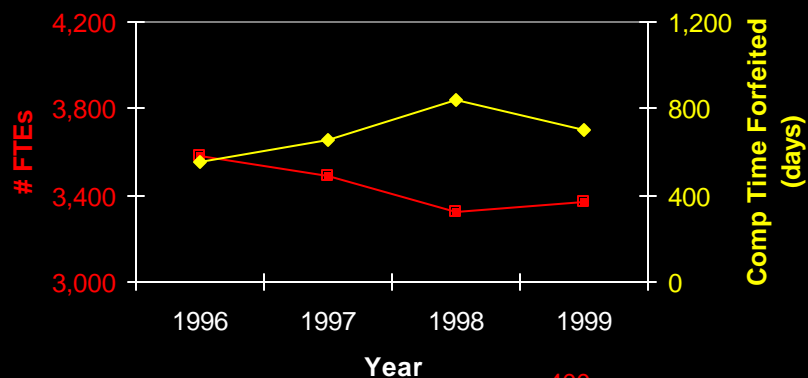
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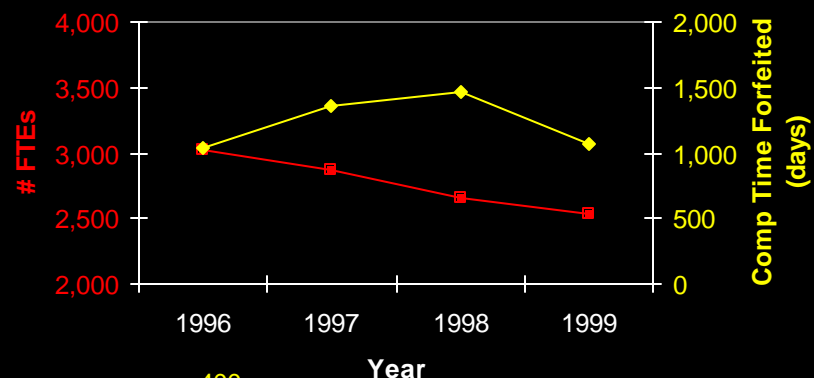


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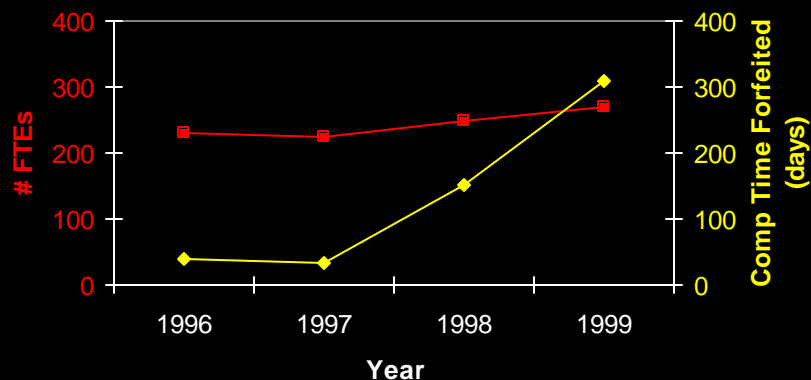
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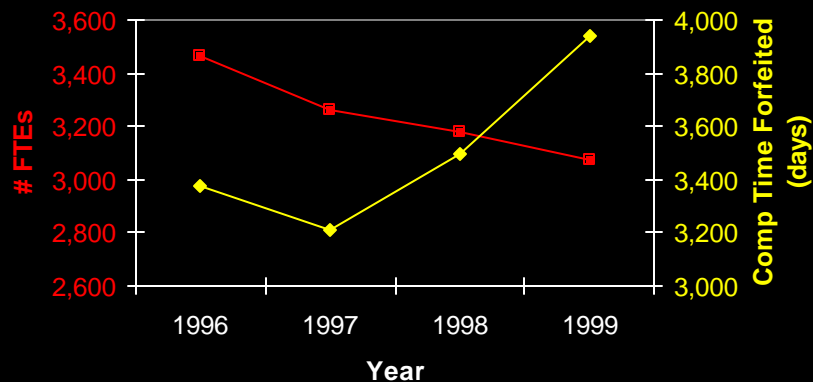


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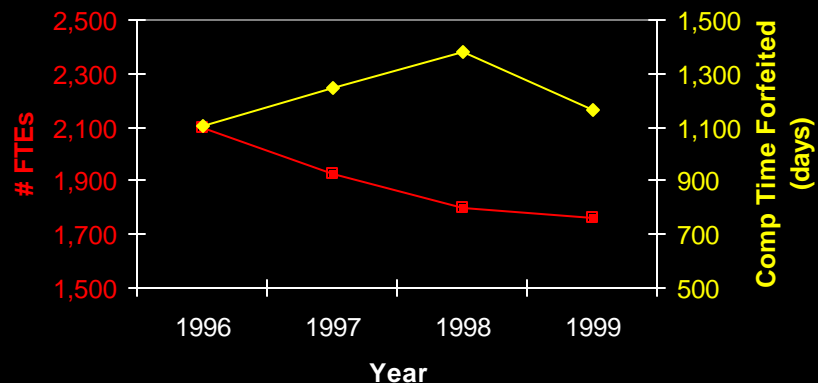


■ FTEs
◆ Comp Time Forfeited (days)

JSC



KSC





Sequence of Events (historical)

- 1994 -1997 Tracked EAP data indicates growing caseload despite downsizing
- 1997 EAP officers indicate increase in workplace stress, anger and hostility cases
- 1998 focus group report shows the benefit of/need for stress reduction programs
- 1999 NIMH Depression Screening Survey
- 1999 OHP initiates development of web-based stress reduction modules



Sequence of Events (current)

- 10/22/99--Briefing at SMC concerning NASA stress indicators
 - Administrator tasks OIC for recommendations to reduce employee stress; due 12/31/99
- 12/15/99--OLMSA consolidates OIC suggestions and provide overarching recommendations; 1/14/00 due date
- 1/14/00--OLMSA briefs OIC recommendations to ADA
 - ADA tasks OLMSA to present report to OHSEB for concurrence/approval, develop timeline for implementation and present to SMC



Warning Signs of Stress

- EAP utilization increasing 1% per year since 1996
- Increasing cases of anger and work-related stress
- Increasing incidents of workplace violence
- EAP referrals from Depression survey hotline
- Increase in area-specific reported moderate-to-severe depression cases
- Multiple new initiatives still outstrip recent FTE relief
- Increase in “unscheduled” leave highest at Centers with greatest downsizing
- Increase in overtime reported
- Increase in earned comp time reported
- Increase in forfeited annual leave



National Trends

- NIOSH reported more jobs were lost in 1998 due to downsizing than in the 10 years previous
- Patterns for Disability Adjusted Life Years place major depression as second only to cardiovascular disease
- American Psychological Association notes that in the past decade “the most dramatic change we have seen in the United States is the rapid and remarkable increase, in a relatively short period of time, in the number of workers working longer hours.” 1999



National Trends

(con't)

- 1998 OPM reports factors commonly influencing workplace stress include:
 - Workload
 - Control over one's work
 - Tangible and intrinsic rewards of work
 - Relationship and sense of community/family among co-workers
 - Perception of fairness in the workplace
 - Role of personal and organizational values
- 1999 Surgeon General Mental Health Report
 - For one in five Americans, adulthood is interrupted by mental illness



Health Risk Factor Impact on Work Performance

1998 Health Enhancement Research Organization report
on comparative impact of modifiable risk factors for
cardiovascular disease on workplace productivity

- **Analysis evaluated the impact of known CVD risk factors (poor health habits) including cigarette smoking, sedentary lifestyle, stress, depression, obesity, hypertension, high serum cholesterol, elevated glucose, and excessive alcohol intake**
- **Impact of known modifiable CVD risk factors compared separately for men and women**



Health Risk Factor Impact on Work Performance (con't)

Impact of leading causes of poor health on workplace productivity for males

- **Doubled for self-reported depression**
- **In order, highest for self-reported tobacco users, high blood glucose levels, obesity, self-reported stress, and self-reported sedentary lifestyles**

Impact of leading causes of poor health on workplace productivity for females

- **In order, highest impact associated with high blood glucose, self-reported stress, and obesity**



Stress & Depression in the Workplace

- Depression is the most common and disabling form of mental illness in the workplace
 - **At any time 1 employee in 20 is experiencing depression**
- Depression affects judgement, ability to work with others, concentration and decision making ability
- In 1999, NASA began participation in National Mental Institute of Health telephone depression screening survey
 - **Increase in new EAP referrals**
 - **Spike in moderate-to-severe depression category in one geographic area between 3rd and 4th quarters**